Manitoba Monthly Surveillance Unit Report
Reported up to November 30, 2010

Highlights:

1. **Antimicrobial Resistant Organisms**
   Together Methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (*C. difficile*) accounted for 63% of all non-STBBI related communicable diseases reported to Manitoba Health during November 2010.

   - The number of reported cases of MRSA was above the statistically expected range in November 2010 – 325 positive lab-confirmed cases reported; less than 314 expected in an average month.

   The data reveal that there are increased numbers of MRSA and Vancomycin-resistant *Enterococcus* (VRE) in 2010 compared to 2009. Since becoming a reportable disease in Manitoba in 1999, the number of MRSA cases has been increasing every year, especially in northern regions. The increased number of VRE cases in 2010 is attributable to hospital-related VRE outbreaks reported this year.

2. **Sexually Transmitted & Blood-Borne Infections (STBBI)**
   There were 593 reported cases of sexually transmitted infections (chlamydia, gonorrhoea, and syphilis) in November 2010:
   - 498 reported cases of chlamydia (CT) only
   - 52 reported cases of gonorrhoea (GC) only
   - 42 reported co-infections of CT and GC and
   - 1 reported case of syphilis

   Chlamydia has the highest incidence of reported STBBI. Females between the ages of 15 and 24 years comprised 45% of all reported chlamydia cases in the province.

   Syphilis cases include both infectious and non-infectious cases, as well as those requiring further follow-up to determine their status.

   In November 2010, there were no cases of Hepatitis B virus (HBV), 34 cases of Hepatitis C virus (HCV) and 13 cases of HIV newly reported in Manitoba.

3. **Other Communicable Diseases**
   The number of reported cases in November 2010 was within or below the statistically expected range for these reported communicable diseases with the exception of the following diseases:

   - Pertussis: 4 positive lab-confirmed cases reported; less than 4 expected in an average month.

- Streptococcus pneumoniae (other sterile site): 3 positive lab-confirmed cases reported; less than 3 expected in an average month.
- Shigellosis: 6 positive lab-confirmed cases reported; less than 6 expected in an average month.
- Tuberculosis (non-respiratory): 5 cases reported; less than 5 expected in an average month.

The expected number of cases and range is statistically based on the number of reported cases during October, November, and December, 2005-2009.

The data reveal that there are increased numbers of verotoxigenic E. coli, Shigella, and Pertussis in 2010 compared to 2009. These increases are attributable to the occurrence of isolated outbreaks reported to Manitoba Health.

Explanatory Notes:

General:

Each monthly communicable disease report includes the number of cases of notifiable communicable diseases reported by lab or health provider during each individual month. Data for the monthly summary are aggregated based on the earliest of: symptom onset date, specimen collection date, or report date. For the majority of cases, the date used will be the specimen collection date as symptom onset date is frequently not recorded. Some discrepancy of numbers may be based on reporting delays.

The observed numbers of cases are compared to the statistically expected range for each reportable communicable disease. This involves comparing the current month's case counts to the average case counts for the same month, one month subsequent and one month prior for the previous five years. These same months over the five years are used to determine the expected range of cases using the statistical calculation of standard deviation. Using this specific monthly pattern allows for adjustment within the statistics for both seasonality and cyclical disease patterns.

The year-to-date case counts are based on the calendar year.

The disease data reported in the monthly report has not been analyzed for severity or associated deaths at this time.

Disease specific information:

Methicillin-resistant *Staphylococcus aureus* (MRSA) positive results within Manitoba include both individuals who are symptomatic of infection and colonized individuals who have no symptoms and are mostly diagnosed during admission screening activities at facilities. If facilities increase their screening activities, it would usually result in a rise in colonized MRSA cases.

A new case of Hepatitis C Virus (HCV) infection is defined as a first positive test for an identifiable individual.

A new case of Human Immunodeficiency Virus (HIV) infection is defined as a positive test with a unique code that has not been previously linked to a positive test result in Manitoba. Positive HIV tests included in this month's statistics include both nominal and non-nominal testing results.

The number of Tuberculosis cases year-to-date may not equal the sum of cases reported for each month of this year. As new test results are received, there may be a change in diagnosis. Occasionally, diagnosis dates are updated, which also contributes to total numbers varying from month to month.

SUMMARY OF COMMUNICABLE DISEASE FOR November 2010

		MONTHLY TOTAL				YEAR-TO-DATE	
ICD9	DISEASE/INFECTION	2009	2010	Expected*	Ex. Range**	2009	2010
006.9	AMEBIASIS	3		3	0-6	40	29
022	ANTHRAX				***		
127.0	ASCARIASIS			0	0-1		1
005.8	B. CEREUS			0	0-1	5	
320.1	BAC. MENINGITIS - PNEUM			0	0-1	4	
320.7	BAC.MENINGITIS-LISTERIA				***		
038.0	BETA STREP SEPTICEMIA	9	7		***	141	132
116.0	BLASTOMYCOSIS				***	7	6
005.1	BOTULISM				***		
023	BRUCELLOSIS		1	0	0-1	1	1
005.2	C. PERFRINGENS			0	0-1	3	1
008.43	CAMPYLOBACTER	9	21	18	2-34	223	231
558.2	CLOSTRIDIUM DIFFICILE	65	66		***	766	753
046.1	CREUTZFELD-JACOB DISEASE				***	3	
007.8	CRYPTOSPORIDIOSIS	1	3	3	0-9	36	22
061.0	DENGUE FEVER			0	0-0		
065.4	DENGUE HEMORRHAGIC FEVER			0	0-0		
V02.4	DIPH.CARRIERS	2	1	0	0-1	3	9
032	DIPHTHERIA CASES			0	0-1		4
123.4	DIPHYLLOBOTHRIUM SPP		1	1	0-3	4	8
008.0	E. COLI-VEROTOXIGENIC	4	2	5	0-19	42	84
054.3	ENCEPHALITIS			0	0-1		
005.9	FOOD POISONING OTHER			0	0-1		
007.1	GIARDIA LAMBLIA	11	9	9	3-15	123	107
320.0	H.INFLUENZAE (CSF)			0	0-1		1
041.5	H.INFLUENZAE (OTHER STERILE)			0	0-1	3	
041.59	HAEM. INFLUENZAE (non-B)				***	1	1
480.8	HANTA VIRUS			0	0-0		
283.11	HEMOLYTIC UREMIC SYNDROME			0	0-1		1
070.1	HEPATITIS A			0	0-1	12	7
070.3	HEPATITIS B			0	0-1	5	1
070.51	HEPATITIS C	16	34	30	15-45	309	302
487.1A	INFLUENZA A****	4	49		***	96	50
487.1B	INFLUENZA B				***	38	
482.83	LEGIONELLA			0	0-1		5
085.9	LEISHMANIASIS			0	0-0		
030.9	LEPROSY			0	0-0		
027.0	LISTERIA MONOCYTOGENES			0	0-1	2	4
088.81	LYME DISEASE			0	0-1	1	4
084	MALARIA	3	1	1	0-3	11	12
055.9	MEASLES			0	0-0		1
036.0	MENINGOCOCCAL CSF			0	0-1		
036.82	MENINGOCOCCAL ARTHROPATHY		1		***		3
036.2	MENINGOCOCCEMIA BLOOD			0	0-1		6
B95.6	MRSA	277	325	198	83-313	2550	3141
072.9	MUMPS			0	0-1	5	2
036.89	N.MENINGITIDIS OTHER			0	0-1	7	
728.86	NECROTIZING FASCIITIS			2	0-5	3	11
729.1	NECROTIZING MYOSITIS				***		
323.9	OTHER ENCEPHALITIS			0	0-0		
033.1	PARAPERTUSSIS				***	2	
033.0	PERTUSSIS	4	4	1	0-3	29	55
038.2	PNEUM. SEPTICEMIA	18	16	10	1-19	117	139
073.9	PSITTACOSIS			0	0-0		

* Mean of 15 month totals, from previous, comparable and subsequent months for the past 5 years.

** Mean +/- 2 standard deviations of the mean.

*** Data collected for less than 5 years.

**** Excludes Wave 1 and 2 cases reported during the 2009 Influenza A H1N1 pandemic. There were no cases of pandemic H1N1 in November 2010.

SUMMARY OF COMMUNICABLE DISEASE FOR November 2010

		MONTHLY TOTAL				YEAR-TO-DATE	
ICD9	DISEASE/INFECTION	2009	2010	Expected*	Ex. Range**	2009	2010
083.0	Q FEVER			0	0-1	1	
082.0	RICKETTSIA RICKETTSII				***		1
056.9	RUBELLA			0	0-0	2	3
771.0	RUBELLA CONGENTIAL			0	0-0		
041.2	S.PNEUM.OTHER		3	1	0-2	8	13
003.0	SALMONELLA	14	11	14	1-27	244	210
079.82	SARS (CORONAVIRUS)				***		
120	SCHISTOSOMIASIS			0	0-1	1	
079.99	SEVERE RESPIRATORY ILLNESS				***		
004	SHIGELLOSIS		6	1	0-5	20	49
050.9	SMALLPOX				***		
005.0	STAPH FOOD POISON			0	0-0		
785.5	STAPH TOXIC SHOCK				***		
481.9	STREP PNEUMONIA - PR			0	0-1		
041.1	STREP PYOGENES - OTHER	3	8		***	94	84
711.0	STREP.PNEUM.ARTHRITIS			0	0-0		
580.0	STREPT GLOMERULONEPHRITIS			0	0-0		
040.89	STREPT TOXIC SHOCK			0	0-1		
481	STREPTOCOCCUS PNEUMONIAE			0	0-0		
127.2	STRONGYLOIDES	1		1	0-5	11	15
037	TETANUS			0	0-0		1
130.9	TOXOPLASMOSIS			0	0-1	1	4
124	TRICHINOSIS			0	0-0		2
086	TRYPANOSOMA CRUZI			0	0-0		3
013	TUBERCULOSIS - NON-RESP.	3	5	2	0-4	28	32
010	TUBERCULOSIS - PRIM.			1	0-3	9	7
011	TUBERCULOSIS - RESP	10	8	7	1-13	112	88
021.9	TULAREMIA			0	0-1	1	1
002.0	TYPHOID			0	0-1	3	5
081.9	TYPHUS			0	0-0		
B96.8	VANCOMYCIN R. ENTEROCOCCI	11	41		***	88	304
005.4	VIBRIO PARAHAEMOLYTICUS				***		2
070.59	VIRAL HEP. OTHER		2		***		6
B95.7	VRSA			0	0-0		
062.1	W. EQUINE ENCEPHALITIS			0	0-0		
066.41	WNV NEUROLOGICAL				***		
008.44	YERSINIA ENTEROCOLITICA	1		1	0-2	8	6
		469	**625**			**5223**	**5970**

* Mean of 15 month totals, from previous, comparable and subsequent months for the past 5 years.
** Mean +/- 2 standard deviations of the mean.
*** Data collected for less than 5 years.

SUMMARY OF COMMUNICABLE DISEASE BY AGE AND GENDER FOR NOVEMBER 2010

		<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-49		50-59		60-69		70-79		80+		Missing Age/Gender	Total
ICD9	Disease Name	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M		
038.0	BETA STREP SEPTICEMIA	1															1							1	1	2	1		7
023	BRUCELLOSIS												1																1
008.43	CAMPYLOBACTER			2			1				1			3			2	1	2	1	1	1	2	1		1	2		21
558.2	CLOSTRIDIUM DIFFICILE											1		3	1	5	3	1	1	7	1	9	3	8	5	9	9		66
007.8	CRYPTOSPORIDIOSIS				1					1					1														3
V02.4	DIPH. CARRIERS			1																									1
123.4	DIPHYLLOBOTHRIUM																				1								1
008.0	E. COLI 0157										1									1									2
007.1	GIARDIA LAMBLIA			1	1	2									1			2	2										9
070.51	HEPATITIS C										1				2	5	3	1	6	2	11		1		1			1	34
070.59	HEPATITIS OTHER (VIRAL)															1			1										2
487.1A	INFLUENZA A	3	5	6	2	1	2	1	2	1		2		2	1	8	5	2	2	1	1					1	1		49
084	MALARIA						1																						1
036.82	MENINGOCOCCAL ARTHROPATHY			1																									1
B95.6	MRSA	7	11	18	15	12	7	10	14	9	13	13	7	9	11	15	21	12	22	12	15	10	17	7	10	15	13		325
033.0	PERTUSSIS	1	1		1				1																				4
038.2	PNEUM. SEPTICEMIA		1	1												1			1	4		4	3		1				16
003.0	SALMONELLA				3							1	2	1		1					1	1					1		11
004	SHIGELLOSIS					1	1	1		1							1					1							6
041.1	STREP PYOGENES - OTHER ST															1		2		3				1	1				8
041.2	STREP.PNEUM.OTHER		1		1																					1			3
013	TUBERCULOSIS - NON-RESP.						1									2		2											5
010	TUBERCULOSIS - PRIM.																												
011	TUBERCULOSIS - RESP															1	1		1		1	2			1		1		8
B96.8	VANCOMYCIN RES. ENTER.											1				1	2	4	1	5	2	3	5	1	4	8	4		41
		12	19	30	24	16	13	12	17	12	16	18	10	18	17	41	39	27	39	36	34	31	31	19	24	37	32		625

SUMMARY OF COMMUNICABLE DISEASE BY REGION (RHA) FOR NOVEMBER 2010

ICD9	Disease/Infection	Winnipeg	Brandon	N. Eastman		S. Eastman		Interlake		Central		Assiniboine		Parkland		Norman		Burntwood		Churchill	OOP**	Missing	TOTAL
*Case Referred to:**				*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*				
038.0	BETA STREP SEPTICEMIA	5							1						1								7
023	BRUCELLOSIS						1																1
008.43	CAMPYLOBACTER	13					1		1		2				1			2	1				21
558.2	CLOSTRIDIUM DIFFICILE	38	4				3		4		7		6				2	1	1				66
007.8	CRYPTOSPORIDIOSIS	1											1	1									3
V02.4	DIPH. CARRIERS																	1					1
123.4	DIPHYLLOBOTHRIUM								1														1
008.0	E. COLI 0157							1							1								2
007.1	GIARDIA LAMBLIA	4	2				2				1												9
070.51	HEPATITIS C	21			1		1	1	4		1		1		1				2		1		34
070.59	HEPATITIS OTHER (VIRAL)	1	1																				2
487.1A	INFLUENZA A	12		1										1	1		1	31	1	1			49
084	MALARIA	1																					1
036.82	MENINGOCOCCAL ARTHROPATHY																	1					1
B95.6	MRSA	96	2	4	3		5	1	13		6	1	7	5	3		13	154	12				325
033.0	PERTUSSIS	1									2						1						4
038.2	PNEUM. SEPTICEMIA	10		1			1				1						1	1				1	16
003.0	SALMONELLA	6	1				1		2		1												11
004	SHIGELLOSIS																	5	1				6
041.1	STREP PYOGENES - OTHER ST	5							1					1				1					8
041.2	STREP.PNEUM.OTHER		1															2					3
013	TUBERCULOSIS - NON-RESP.	2		1														1	1				5
010	TUBERCULOSIS - PRIM.																						
011	TUBERCULOSIS - RESP	5																3					8
B96.8	VANCOMYCIN RES. ENTER.	25		2			6		1		4		1						2				41
		246	11	9	4		21	3	28		25	1	16	8	8		18	203	21	1	1	1	**625**

* F=Federal Jurisdiction (First Nations and Inuit Health); P=Provincial Jurisdiction

** OOP=Out of Province

STBBI Infection Summary Report - November 2010

	MONTHLY TOTAL		YEAR-TO-DATE	
DISEASE/INFECTION	**2009**	**2010**	**2009**	**2010**
All Chlamydia Infections	503	540	5938	5958
All Gonorrhea Infections (including PRNG)	66	94	990	921
All Syphilis Infections*	5	1	45	59
Gonorrhea & Chlamydia Co-infections	33	42	413	413
HIV	5	13	97	119

Total Number of STBBI Cases by Age and Gender - November 2010

	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-49		50-59		60-69		70-79		80+		Missing	
Disease Name	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**age/gender**	**TOTAL**
Chlamydia Only Cases							8		112	36	111	61	56	35	42	20	6	5	3	2		1						498
Gonorrhea Only Cases			1				1		8	5	7	5	7	4	5	3		3		2		1						52
Syphilis Only Cases																										1		1
GC and CT Cases							1		13	5	6	3	5	3	1	2	2	1										42
TOTAL			1				10		133	46	124	69	68	42	48	25	8	9	3	4		2				1		593
HIV	1											2	3	3	1	1	1			1								13

Regional STBBI Distribution - November 2010

Disease/Infection	**Winnipeg**	**Brandon**	**N. Eastman**		**S. Eastman**		**Interlake**		**Central**		**Assiniboine**		**Parkland**		**Norman**		**Burntwood**		**Churchill**	**OOP*** **	**Missing**	**TOTAL**
Case Referred to: **			***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***				
All Chlamydia Infections	283	24	13	14	1	6	5	10	2	11		15	3	10	7	32	70	25		9		540
All Gonorrhea Infections	43	2	3	5	1	5	3	2		3					2	5	18	2				94
All Syphilis Infections												1										1
GC and CT Infections	18	1	1	3		1	1	2							1	3	11					42

* Syphilis cases include both infectious and non-infectious cases, as well as those requiring further follow-up to determine their status.
** F=Federal Jurisdiction (First Nations and Inuit Health); P=Provincial Jurisdiction
*** OOP=Out of Province